REMARKS

The rejection of claims 6, 7, 9, and 10 under 35 USC 112, first paragraph, as failing to comply with the enablement requirement is respectfully traversed. Applicant has attached hereto a sequence listing for DP-7 and JH4. Also enclosed herewith are certificates indicating the deposit of hybridoma cell lines KCTC 10198BP and KCTC 10199BP.

KCTC 10198BP is a hybridoma cell comprising pHuKR127HC vector, and KCTC 10199BP is a hybridoma cell comprising pHuKR127KC vector. Each vector comprises modified DP7-JH4 and KPK12-JK4, respectively. Moreover, in the last lines of Fig. 2b and Fig. 4b in the specification, JH4 of DP7-JH4 and JK4 of DPK12-JK4, are indicated respectively.

The receipt for the deposit for microorganisms KCTC 10198BP and KCTC 10199BP substantiates the hybridoma cell lines for producing the claimed constructs. As indicated above, each vector comprises a modified BP7-JH4 and BP12-JK4. Thus, a skilled artisan from the publically available sequences and from the disclosures of DP7, JH4, DPK12 and NK, would clearly be enabled to make and use the claimed antibodies. Accordingly, applicant believes the rejection of claims 6, 7, 9 and 12 for lack of enablement under 35 USC 112, first paragraph, should be withdrawn.

The rejection of claim 2 under 35 USC 102(b) as being anticipated by Leong

et al (Cytokine, November 2001, Vol. 16, p. 106-119) is respectfully traversed.

Claim 2 has been modified to limit the claim to a process for preparing a humanized antibody consistent of the steps of (a) and (b) and in that order respectively. It should be noted that step (b) of the present invention is not a process for grafting CDR, but that for grafting SDR. Accordingly, the statement of the Examiner on page 5 of the office Action alleging that the present method steps include (a) performing alanine scanning mutagenesis to optimize the affinity of the murine antibody and (b) grafting the murine CFRs onto the human antibody is correct. As stated above, step (b) of present invention is not a process for grafting CDR but that for grafting SDR. Step (a) of the present invention necessarily proceeds step (b) because step (b) is a step for grafting SDR which are amino acids selected from step (a). Therefore, claim 2 of the present application is novel in view of the fact that step (b) must necessarily follow step (a) and that only SDR among CDR is grafted. The purpose for humanized antibodies in the present invention is for minimizing murine derived sequences. Further differences between the present invention and Leong et al are shown in the following table:

	Leong et al	Present invention
Difference of humanized antibody		
Where to graft antibody from murine antibody	Whole CDR-grafting	**Only** SDR-grafting
HAMA response	No change (because of whole CDR grafting)	Decreasing HAMA response (because of **SDR** grafting only)
Difference of alanine scanning mutagenesis'		
Alanine scanning candidates	Based on 3-dimensional structure	All amino acid among CDR region, respectively
A standard for determining a specific region	region to increase affinity	region to sharply decrease affinity
Purpose to perform an Alanine scanning mutagenesis	For changing an amino acid to another amino acid which has a higher affinity to murine CDR	For substituting for an amino acid a murine sequence from human CDR

Clearly, the steps of the present method do not correspond to the method steps in Leong.

The amendment of claim 2 limits the process solely to grafting SDR. Accordingly, the rejection of claim 2 under 35 USC 102(b) should be withdrawn.

The rejection of claim 3 under 35 USC 103(a) as being obvious over Maeng et al (Virology, 2000 Vol. 270, p. 9-16) in view of Leong et al is respectfully traversed.

Claim 3 is a dependent claim which depends from claim 2. As explained above, claim 2 has the novel step of grafting only SDR among CDR. This is not taught or suggested in Leong et al or Maeng et al. Accordingly, claim 3 is clearly patentable over the teaching of Leong et al taken alone or in combination with Maeng et al.

Applicant acknowledges that claims 4, 5 and 8 were considered allowable if rewritten in independent form to include all of the limitations of the base claim from which they depend and any intervening claims. Since claims 4, 5 and 8 depend from claim 3, which applicant believes is clearly patentable, claims 4, 5 and 8 are now believed to be in condition for allowance.

Claims 6, 7, 9 and 10 are also dependent claims which depend from claim 3 and are therefore believed patentable for the same reasons as given above.

Reconsideration and allowance of claims 2-10 is respectfully solicited.

Respectfully submitted,

Eugene Lieberstein
Registration No. 24,645

Customer No.: 79681

BAKER & HOSTETLER
45 Rockefeller Plaza
New York, NY 10111
Tel: 212-589-4634
Fax: 212-589-4201

CERTIFICATE OF TRANSMISSION

I hereby certify that this Amendment is being sent to the U.S. Patent Office via EFS-Web to the Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450 on February 17, 2009.

By_____
L. Quagliariello

<<Sequences for DP7 and JH4>>

<210> 1
<211> 80
<212> PRT
<213> Homo sapiens

<220>
<221> DP7

<400> 1

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Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
                25                  30                  35                  40
Glu Trp Met Gly Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr
                45                  50                  55                  60
Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
                65                  70                  75                  80
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<210> 2
<211> 11
<212> PRT
<213> Homo sapiens

<220>
<221> JH4

<400> 2

```
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
                5                  10
```

BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSE OF PATENT PROCEDURE

INTERNATIONAL FORM

RECEIPT IN THE CASE OF AN ORIGINAL DEPOSIT

issued pursuant to Rule 7.1

TO : HONG, Hyo Jeong
Clover Apt. 117-201, Dunsan-dong, Seo-ku, Taejon 302-772,
Republic of Korea

I. IDENTIFICATION OF THE MICROORGANISM	
Identification reference given by the DEPOSITOR: *Escherichia coli* DH5@/pdCMV-dhfrC-HuKR127	Accession number given by the INTERNATIONAL DEPOSITARY AUTHORITY: KCTC 10198BP

II. SCIENTIFIC DESCRIPTION AND/OR PROPOSED TAXONOMIC DESIGNATION
The microorganism identified under I above was accompanied by: [x] a scientific description [ ] a proposed taxonomic designation (Mark with a cross where applicable)

III. RECEIPT AND ACCEPTANCE
This International Depositary Authority accepts the microorganism identified under I above, which was received by it on **March 13 2002.**

IV. RECEIPT OF REQUEST FOR CONVERSION
The microorganism identified under I above was received by this International Depositary Authority on and a request to convert the original deposit to a deposit under the Budapest Treaty was received by it on

V. INTERNATIONAL DEPOSITARY AUTHORITY	
Name: Korean Collection for Type Cultures Address: Korea Research Institute of Bioscience and Biotechnology (KRIBB) #52, Oun-dong, Yusong-ku, Taejon 305-333, Republic of Korea	Signature(s) of person(s) having the power to represent the International Depositary Authority of authorized official(s): B. K. S. BAE, Kyung Sook, Director Date: **March 16 2002**

BUDAPEST TREATY ON THE INTERNATIONAL RECOGNITION OF THE DEPOSIT OF MICROORGANISMS FOR THE PURPOSE OF PATENT PROCEDURE

INTERNATIONAL FORM

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TO : HONG, Hyo Jeong
Clover Apt. 117-201, Dunsan-dong, Seo-ku, Taejon 302-772,
Republic of Korea

I. IDENTIFICATION OF THE MICROORGANISM	
Identification reference given by the DEPOSITOR: **CHO/EnKR127** **(CHO cell line)**	Accession number given by the INTERNATIONAL DEPOSITARY AUTHORITY: **KCTC 10193BP**

II. SCIENTIFIC DESCRIPTION AND/OR PROPOSED TAXONOMIC DESIGNATION

The microorganism identified under I above was accompanied by:
[x] a scientific description
[ ] a proposed taxonomic designation
(Mark with a cross where applicable)

III. RECEIPT AND ACCEPTANCE

This International Depositary Authority accepts the microorganism identified under I above, which was received by it on **March 13 2002.**

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V. INTERNATIONAL DEPOSITARY AUTHORITY

Name: Korean Collection for Type Cultures Address: Korea Research Institute of Bioscience and Biotechnology (KRIBB) #52, Oun-dong, Yusong-ku, Taejon 305-333, Republic of Korea	Signature(s) of person(s) having the power to represent the International Depositary Authority of authorized official(s): Bae K.S. BAE, Kyung Sook, Director Date: **March 16 2002**

Form BP/4 (KCTC Form 17)

sole page